

**ABSTRACT**

A system and a method for prediction and treatment of all kinds of slugs

5 being formed in a flow line system or wellbore tubing transporting a multiphase fluid towards a downstream process including a separator or a slug catcher at the process inlet. The system includes a slug detector (1) located downstream of the point for slug initiation and upstream of the process and a computer unit (4) integrating the flow line system and the downstream process including software

10 which determines the type of the slug, its volume and predicts its arrival time into the downstream process. The computer unit processes all its incoming data to obtain an optimum regulation of the process so that process perturbations due to incoming slugs are reduced to a minimum through the process.